

CLAIMS

What is claimed is:

1. A method for identifying a broad-spectrum antiviral lead compound, the method comprising:
determining antiviral activity of a plurality of compounds against two or more viruses; and
identifying a broad-spectrum antiviral lead compound from the plurality of compounds, said lead compound having activity against at least two of the two or more viruses.
2. The method of claim 1 wherein determining comprises determining antiviral activity of each of the plurality of compounds against at least one subgenomic viral replication system representative of at least one of the two or more viruses.
3. The method of claim 2 wherein the subgenomic viral replication system is selected from a group consisting of a defective genome, a minigenome, an amplicon, and a replicon.
4. The method of claim 1 wherein identifying is a function of the determined antiviral activity and a number of the two or more viruses for which the lead compound has antiviral activity.
5. The method of claim 1 wherein the determining of antiviral activity for each of the plurality of compounds comprises determining one or more of the group consisting of an EC50, a CC50, and a Selectivity Index (SI).
6. The method of claim 1 wherein identifying a broad-spectrum antiviral lead compound is a function of rating each of the plurality of compounds for broad-spectrum

antiviral activity, said rating being a function of the number of viruses for which each compound has antiviral activity.

7. The method of claim 1 wherein the identified broad-spectrum antiviral lead compound has antiviral activity greater than a predetermined threshold antiviral activity against each of the at least two of the two or more viruses.

8. The method of claim 1 wherein the two or more viruses comprise two or more viruses from one viral family and the identified broad-spectrum antiviral lead compound has antiviral activity greater than a predetermined threshold antiviral activity against at least two viruses of the two or more viruses from the one viral family.

9. The method of claim 1 wherein the two or more viruses are RNA viruses.

10. The method of claim 1 wherein the two or more viruses are positive-strand RNA viruses.

11. The method of claim 1 wherein the two or more viruses are from one or more virus families selected from a group consisting of Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

12. The method of claim 1 wherein the two or more viruses are selected from a group consisting of Sindbis virus, rubella, hepatitis C virus, West Nile virus, yellow fever virus, tick-borne encephalitis virus, Japanese encephalitis virus, coxsackivirus, enterovirus, hepatitis A virus, SARS, astrovirus, Dengue fever virus, poliovirus, and Venezuela encephalitis virus, WEE, EEE, Marajo O'nong nong, Ross River, Chikungunya, DV, Rhinovirus, Feline, murine, Norwalk, Bovine, and human coronaviridae.

13. The method of claim 1 wherein the two or more viruses are negative-strand RNA viruses.

14. The method of claim 1 wherein the two or more viruses are from one or more virus families selected from a group consisting of Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Bornaviridae, and Arenaviridae

15. The method of claim 1 wherein the two or more negative-strand RNA viruses consist of RSV, Ebola, and Influenza.

16. The method of claim 1 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus (RSV), Ebola virus, rabies virus, Lassa fever, Argentine hemorrhagic fever virus, La Crosse virus, Rift Valley fever, Hantaan virus, California encephalitis virus, influenza virus A, influenza virus B, measles, mumps, Marburg virus, Bolivian hemorrhagic fever virus, Crimean-Congo virus, HPIV, HMPV, Nipah, Hendra, VSV, LCMV, Junin, Bunyamwera, Uukuniemi, and CCHF.

17. The method of claim 1 wherein the two or more viruses are RNA retroviruses.

18. The method of claim 1 wherein the two or more viruses are selected from a group consisting of HIV-1, HIV-2, HTLV-1, and HTLV-2.

19. The method of claim 1 wherein the two or more viruses are double strand RNA viruses.

20. The method of claim 1 wherein the two or more viruses includes a virus from a Reoviridae virus family.

21. The method of claim 1 wherein the two or more viruses are DNA viruses.

22. The method of claim 1 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, and Parvoviridae.

23. The method of claim 1 wherein the two or more viruses are selected from a group consisting of human parvovirus, adeno-associated virus, herpes simplex virus type 1, herpes simplex virus type two, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, BK virus, human papilloma virus, Epstein-Barr virus, JC virus, human cytomegalovirus, and varicella-zoster virus.

24. The method of claim 1 wherein the two or more viruses are DNA reverse transcribing viruses.

25. The method of claim 1 wherein the two or more viruses includes a virus from Hepadnaviridae family.

26. The method of claim 1 wherein the two or more viruses are selected from a group consisting of RNA viruses and DNA viruses.

27. The method of claim 1 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, influenza virus A, Venezuela encephalitis virus, West Nile virus, and Ebola virus.

28. The method of claim 1 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

29. The method of claim 1 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

30. The method of claim 1 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae,

Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

31. The method of claim 1 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

32. A method for identifying a class of broad-spectrum antiviral compounds, the method comprising:

determining antiviral activity of compounds from two or more classes of compounds against two or more viruses, each of said classes of compounds having one or more member compounds; and

identifying a class of broad-spectrum antiviral compounds, said class of broad-spectrum antiviral compounds having a member compound with antiviral activity greater than a predetermined threshold antiviral activity against a plurality of the two or more viruses.

33. The method of claim 32 wherein determining comprises determining antiviral activity of each compound against at least one subgenomic viral replication system representative of at least one of the two or more viruses.

34. The method of claim 33 wherein the subgenomic viral replication system is selected from a group consisting of a defective genome, a minigenome, an amplicon, and a replicon.

35. The method of claim 32 wherein the two or more viruses comprise two or more viruses from one viral family and the identified class of broad-spectrum antiviral compounds has activity greater than the predetermined threshold antiviral activity against at least two viruses of the two or more viruses from the one viral family.

36. The method of claim 32 wherein the two or more viruses are RNA viruses.

37. The method of claim 32 wherein the two or more viruses are DNA viruses.

38. The method of claim 32 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA viruses.

39. The method of claim 32 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

40. The method of claim 32 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

41. The method of claim 32 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

42. The method of claim 32 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

43. A method of rating compounds for broad-spectrum antiviral efficacy, the method comprising:

determining antiviral activity for compounds against two or more viruses; and

rating each compound for broad-spectrum activity as a function of the determined antiviral activity and a number of viruses for which each compound has antiviral activity.

44. The method of claim 43 wherein the two or more viruses includes at least one subgenomic viral replication system representative of at least one of the two or more viruses.

45. The method of claim 44 wherein the subgenomic viral replication system is selected from a group consisting of a defective genome, a minigenome, an amplicon, and a replicon.

46. The method of claim 43 wherein the determining of antiviral activity for compounds and the rating of each compound comprises determining and rating as a function of one or more antiviral measurements from the grouping consisting of an EC50, a CC50, and a Selectivity Index (SI).

47. The method of claim 43 wherein the rating of each compound for broad-spectrum antiviral activity is proportional to the number of viruses for which each compound has antiviral activity.

48. The method of claim 43 wherein the rating of each compound for broad-spectrum antiviral activity is a function of a number of viruses for which each compound has antiviral activity greater than a predetermined threshold antiviral activity rating level.

49. The method of claim 48, further comprising selecting a broad-spectrum lead compound as a function of the rating of the compounds.

50. The method of claim 48 wherein selection a broad-spectrum lead compound is a function of a rating greater than a predetermined threshold antiviral activity rating level.

51. The method of claim 43 wherein the two or more viruses are RNA viruses.

52. The method of claim 43 wherein the two or more viruses are DNA viruses.

53. The method of claim 43 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA viruses.

54. The method of claim 43 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

55. The method of claim 43 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

56. The method of claim 43 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

57. The method of claim 43 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

58. A method for developing and marketing a broad-spectrum antiviral lead compound, the method comprising:

selecting a broad-spectrum antiviral lead compound;

developing a broad-spectrum antiviral drug from the broad-spectrum antiviral lead compound; and

marketing the broad-spectrum antiviral drug to an aggregate of market opportunities, said aggregate of market opportunities includes treatment of two or more viral infections associated with two or more viruses.

59. The method of claim 58 wherein one of the aggregate of market opportunities comprises increasing an antiviral efficacy of a particular antiviral drug against a particular virus.

60. The method of claim 58 wherein one of the aggregate of market opportunities is treatment of a suspected viral infection prior to diagnosing a particular virus responsible for the suspected viral infection.

61. The method of claim 58 wherein one of the aggregate of market opportunities comprises treatment of a patient for a particular viral infection associated with a particular virus as a function of the unavailability of a particular antiviral drug having antiviral efficacy against the particular virus.

62. The method of claim 58, further comprising performing a clinical trial of the broad-spectrum drug in the treatment of the two or more viral infections associated with the two or more viruses.

63. The method of claim 58, further comprising obtaining regulatory approval of the broad-spectrum drug for the treatment of the two or more viral infections associated with the two or more viruses.

64. The method of claim 58 wherein the two or more viruses are RNA viruses.

65. The method of claim 58 wherein the two or more viruses are DNA viruses.

66. The method of claim 58 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA reverse transcribing viruses.

67. The method of claim 58 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

68. The method of claim 58 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

69. The method of claim 58 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

70. The method of claim 58 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human

herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

71. A method for delivering a broad-spectrum antiviral compound to a drug company, the method comprising:

identifying the broad-spectrum antiviral compound having antiviral activity against two or more viruses;

providing information to the drug company about broad-spectrum antiviral compound and an aggregate of market opportunities for the broad-spectrum antiviral compound; and

transferring the broad-spectrum antiviral compound to the drug company, said drug company producing and marketing a broad-spectrum antiviral drug from the transferred broad-spectrum antiviral compound.

72. The method of claim 71 wherein transferring consists of one or more functions selected from a group consisting of selling, contracting, licensing, receiving ownership rights, and receiving payment.

73. The method of claim 71 wherein one of the aggregate of market opportunities comprises increasing an antiviral efficacy of a particular antiviral drug against a particular virus.

74. The method of claim 71 wherein one of the aggregate of market opportunities comprises treatment of a suspected viral infection prior to diagnosing a particular virus responsible for the suspected viral infection.

75. The method of claim 71 wherein one of the aggregate of market opportunities comprises treatment of a particular viral infection associated with a particular virus as a function of an unavailability of a particular antiviral drug having antiviral efficacy against the particular virus.

76. The method of claim 71 wherein two or more of the aggregate of market opportunities comprises treatment of two or more viruses selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

77. The method of claim 71 wherein the two or more of the aggregate of market opportunities comprises treatment of two or more viruses from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Bornaviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

78. The method of claim 71 wherein the two or more viruses are RNA viruses.

79. The method of claim 71 wherein the two or more viruses are DNA viruses.

80. The method of claim 71 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA reverse transcribing viruses.

81. The method of claim 71 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Bornaviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

82. The method of claim 71 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

83. The method of claim 71 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

84. The method of claim 71 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

85. A method for marketing a broad-spectrum antiviral compound to a health care provider for treatment of a patient having a virus infection, the method comprising:

identifying the broad-spectrum antiviral compound having activity against two or more viruses,

providing information about the broad-spectrum antiviral activity of said broad-spectrum antiviral compound to the health care provider; and

delivering the broad-spectrum antiviral compound in response to receiving a request for delivery from the health care provider.

86. The method of claim 85 wherein providing information includes providing information about the antiviral activity of the broad-spectrum antiviral compound against the two or more viruses.

87. The method of claim 85 wherein providing information includes providing information about an aggregate of market opportunities for the broad-spectrum antiviral compound, said aggregate of market opportunities includes the antiviral activity of the broad-spectrum antiviral compound against the two or more viruses.

88. The method of claim 87 wherein one of the aggregate of market opportunities comprises increasing an antiviral efficacy of a particular antiviral drug against a particular virus, the particular antiviral drug having antiviral efficacy against the particular virus.

89. The method of claim 87 wherein one of the aggregate of market opportunities is treatment of a suspected viral infection prior to diagnosing a particular virus responsible for the suspected viral infection.

90. The method of claim 87 wherein one of the aggregate of market opportunities comprises treatment of a particular viral infection associated with a particular virus as a function of an unavailability of a particular antiviral drug having antiviral activity against the particular virus.

91. The method of claim 85, further comprising receiving payment in exchange for the delivery of the broad-spectrum antiviral compound.

92. The method of claim 85 wherein identifying comprises identifying the antiviral activity of the plurality of compounds against at least one subgenomic viral replication system representative of at least one of the two or more viruses.

93. The method of claim 92 wherein the subgenomic viral replication system is selected from a group consisting of a defective genome, a minigenome, an amplicon, and a replicon.

94. The method of claim 85 wherein the two or more viruses are RNA viruses.

95. The method of claim 85 wherein the two or more viruses are DNA viruses.

96. The method of claim 85 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA reverse transcribing viruses.

97. The method of claim 85 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

98. The method of claim 85 wherein the two or more viruses are selected from a group consisting of respiratory syncytial virus and hepatitis C virus.

99. The method of claim 85 wherein the two or more viruses are selected from a group consisting of West Nile virus, yellow fever virus, Sindbis virus, Venezuela encephalitis virus, and Ebola virus.

100. The method of claim 85 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

101. A method for treating a suspected viral infection in a patient by administering a broad-spectrum antiviral compound to a patient, the method comprising:
determining a presence of the suspected viral infection in the patient, said viral infection being associated with a particular virus; and
administering the broad-spectrum antiviral compound to the patient, said administering being prior to determining the particular virus responsible for the suspected viral infection.

102. The method of claim 101 wherein the broad-spectrum antiviral compound has antiviral activity against two or more viruses.

103. The method of claim 102 wherein the two or more viruses are RNA viruses.

104. The method of claim 101 wherein the two or more viruses are DNA viruses.

105. The method of claim 101 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA reverse transcribing viruses.

106. The method of claim 101 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

107. The method of claim 101 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.

108. A method for treatment of a patient having a particular viral infection, the method comprising:

determining an ineffectiveness of an available antiviral drug against a particular virus associated with the particular viral infection; and
administering a broad-spectrum antiviral compound to the patient.

109. The method of claim 108, further comprising:
determining a presence of a particular viral infection in a patient, said particular viral infection resulting from the particular virus;
determining a particular antiviral drug having antiviral activity against the particular virus; and
administering to the patient the particular antiviral drug in combination with administering the broad-spectrum antiviral compound.

110. The method of claim 108 wherein determining an ineffectiveness of an available antiviral drug is determining that a particular antiviral drug having antiviral activity against the particular virus is not available.

111. The method of claim 108 wherein the broad-spectrum antiviral compound has antiviral activity against two or more viruses.

112. The method of claim 108, further comprising identifying the broad-spectrum antiviral compound as a function of antiviral activity against two or more viruses.

113. The method of claim 108 wherein the two or more viruses are RNA viruses.

114. The method of claim 108 wherein the two or more viruses are DNA viruses.

115. The method of claim 108 wherein the two or more viruses are selected from a group consisting of positive-strand RNA viruses, negative-strand RNA viruses, RNA reverse transcribing viruses, double strand RNA viruses, and DNA reverse transcribing viruses.

116. The method of claim 108 wherein the two or more viruses are from one or more virus families selected from a group consisting of Herpesviridae, Polyomaviridae, Papillomaviridae, Adenoviridae, Parvoviridae, Hepadnaviridae, Retroviridae, Reoviridae, Paramyxoviridae, Rhabdoviridae, Filoviridae, Orthomyxoviridae, Bunyaviridae, Arenaviridae, Bornaviridae, Picornaviridae, Caliciviridae, Astroviridae, Coronaviridae, Togaviridae, and Flaviviridae.

117. The method of claim 108 wherein the two or more viruses are selected from a group consisting of hepatitis C virus, yellow fever virus, respiratory syncytial virus, Sindbis virus, poliovirus, Japanese encephalitis virus, hepatitis B virus, human papilloma virus, herpes simplex virus type 1, Epstein-Barr virus, adeno-associated virus, Venezuela encephalitis virus, rubella, coxsackivirus, enterovirus, hepatitis A virus, Dengue fever virus, West Nile virus, tick-borne encephalitis virus, astrovirus, rabies virus, influenza virus A, influenza virus B, measles, mumps, Ebola virus, Marburg virus, La Crosse virus, California encephalitis virus, Hantaan virus, Crimean-Congo virus, Rift Valley fever, Lassa fever, Argentine hemorrhagic fever virus, Bolivian hemorrhagic fever virus, Colorado tick fever, JC virus, BK virus, herpes simplex virus type two, human cytomegalovirus, varicella-zoster virus, human herpes simplex virus type six, human herpes virus type seven, human herpes virus type eight, human adenovirus, HIV-1, HIV-2, HTLV-1, HTLV-2, and human parvovirus.